

# New records of the São Tomé Grosbeak *Neospiza concolor*

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Début 2002, les auteurs ont effectué des recherches dans la forêt primaire de basse altitude dans le sud-ouest de São Tomé, afin d'obtenir des données sur le Grosbec (ou Néospize) de São Tomé *Neospiza concolor*. Cette espèce gravement menacée d'extinction et dont il n'existe plus qu'un seul spécimen dans un musée, n'avait été observée que quelques fois, dans les années 1990. Les investigations furent concentrées sur l'amont du rio São Miguel, dont certaines parties n'avaient pas encore été explorées par des ornithologues. Le Grosbec a été observé trois fois. Son chant, qui est émis fréquemment, consiste en un sifflement de deux notes principales, la deuxième plus haute que la première, entrecoupé d'une note plus basse. Ce chant rappelle celui du Serin de Principé *Serinus rufobrunneus*, mais est d'un ton plus bas. L'espèce se nourrit près du sol et avait au moins deux plantes alimentaires, *Uapaca guineensis* et *Dicranolepis thomensis*. Les oiseaux sont curieux et bien visibles, ce qui laisse supposer que l'espèce est réellement rare et a une aire de distribution restreinte. Il est indispensable d'étudier l'importance de la population et son aire de distribution, afin de pouvoir mettre en place des mesures de protection adéquates.

São Tomé Grosbeak *Neospiza concolor* is known only from one extant specimen and a few sightings in the 1990s<sup>3,4,6</sup> and is considered Critically Endangered<sup>2</sup>. Nothing is known of its population size, ecology or range, though the species is thought to be dependent on primary forest. The lack of records of *N. concolor* has been attributed to it being both rare and a secretive canopy dweller that is frequently overlooked<sup>3</sup>. Further information on the species is therefore essential to enable appropriate conservation action.

## Methods

We conducted two surveys of lowland primary forest in south-west São Tomé, on 4–10 January and 7–13 February 2002. These focused on forested areas in the upper reaches of the rio São Miguel Valley and surrounding ridges and tributaries. Although some of this area has been previously surveyed<sup>1,3</sup> there have been no records of the species in this area. Recent sightings have all been in the catchment of the rio Xufexufe<sup>5,6</sup>.

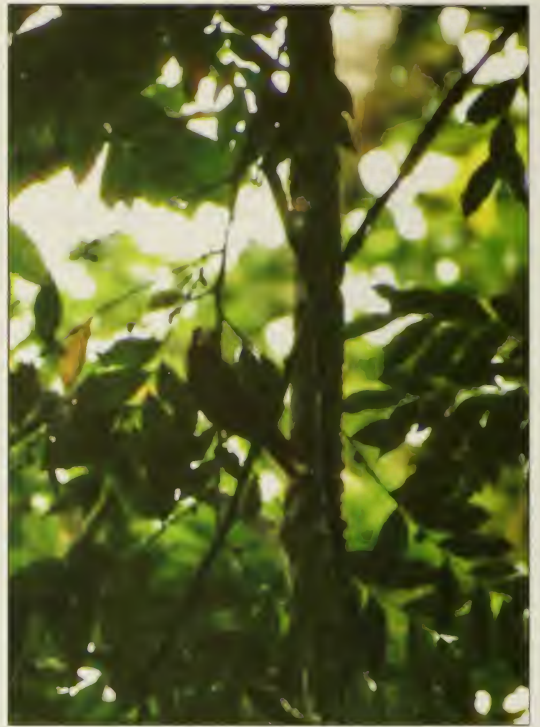
The area surveyed included the ridges connecting, and downslope of, the peaks Zagaia and Queijo, as well as some of those ridges marking the catchment boundary between the rios São Miguel, Xufexufe and Lemba. The altitudinal range investigated was 177–536 m, and parts of this region had not previously been subject to ornithological research. All descriptions of the grosbeak and its song are taken directly from field notes. Grosbeak sightings were made during a point-transect survey of all forest species on São Tomé. The survey covered three regions of primary forest on the island, including the lowland area described here<sup>4</sup>.

## Results

*N. concolor* was first seen by MD, on 7 January 2002, at 11.45 hrs along the upper reaches of the rio São Miguel (00°11'N 06°30'E; 380 m, GPS12 hand-held unit) within closed-canopy primary forest. The individual was foraging in a fruiting *Uapaca guineensis* (Euphorbiaceae) tree (Fig 1) c15 m up on a horizontal branch. Canopy height in the area was 17–24 m (Leica laser rangefinder). The huge pale, deep-based bill contrasted with the dark, reddish-brown thickset head and body. After a few moments it flew to another *U. guineensis* tree and out of sight. Only indistinct whistled calls were heard.

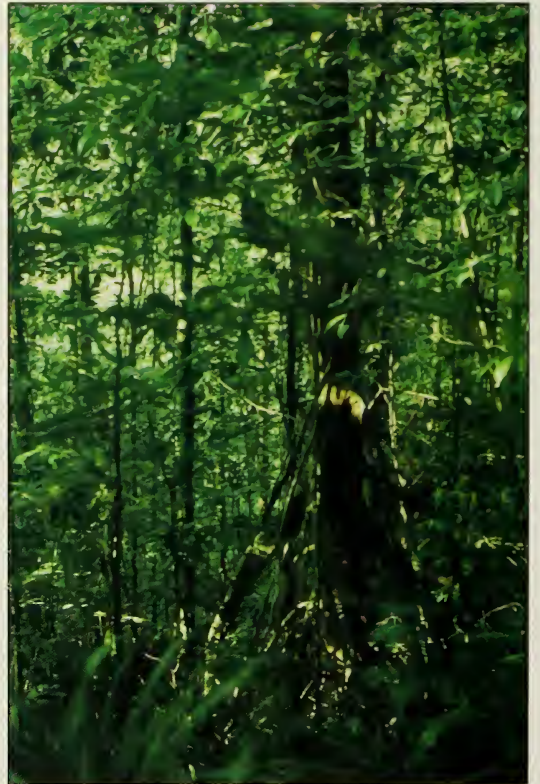
The second survey concentrated on forest below the peaks of Zagaia and Queijo, including several adjoining ridges. Sightings by all of us were made on a ridge running south from Zagaia towards Monte Verde, in closed-canopy primary forest. Canopy height was 12–22 m. The first record, on 9 February 2002 at 07.40 hrs (00°10'N 06°30'E; 400 m) was of a single, c10 m away, 1–2 m above eye-level feeding in and moving between *Dicranolepis thomensis* (Thymeleaceae) trees, 3–5 m high (Fig 2), which were fruiting and held both ripe and unripe fruit. The bird was large, brick-red, with a bone-coloured bill. The body was concolorous without discernible markings, and was noticeably darker than any similar species. The legs appeared pale and the tail was notched. After ten minutes feeding and singing, often appearing agitated, it flew off below the canopy; the flight was direct and relatively rapid (Fig 3).

The second observation occurred on the same day at 12.00 hrs, c1 km further south on the same ridge (00°10'N 06°30'E; 498 m) in a small opening within closed-canopy primary forest (canopy height was approximately 17 m). It was observed for c15 minutes. After flying rapidly across the ridge, c3 m up, it moved around in the mid-storey,



1

3



2

4

frequently singing. The bird was chased by a Príncipe Seed eater *Serinus rufobrunneus* and a Gulf of Guinea Thrush *Turdus olivaceofuscus*, before it settled c15 m away in the mid-canopy of a *U. guineensis* tree, where it was observed feeding, foraging and preening. There were also several fruiting *D. thomensis* trees in the vicinity. We obtained several more brief views as it flew rapidly around the opening, singing loudly. The overall impression was of a thickset bird. The body feathers were uniform dark reddish and the tail was slightly notched. The beak was relatively massive compared to the head and its pale, almost white colour contrasted with the head and body plumage.

The song consisted mainly of a two-note whistle, with the second note higher. The whistle was continuous, with a lower note between the two main notes, and frequently repeated. Song recalls that of Príncipe Seed eater, but is lower in tone. During the 30 minutes following each grosbeak observation we did not hear any other types of song or call. The seed eater has a much wider repertoire. The deeper tonal quality of the grosbeak and repetitive nature of the song distinguish this species from the seed eater.

Two further sightings were made by PL on the same ridge the same day. We also heard a grosbeak on 10 February at 07.55 hrs, 100 m below the south-west cliffs of Queijo, approximately 600 m from the first sighting (00°10'N 06°31'E), but were unable to locate it.

## Discussion

Our observations, the first concerning the species' foraging behaviour, demonstrate that it has at least two food plants, *U. guineensis* and *D. thomensis*. Both were among the commonest fruiting trees we observed. The former is endemic to the Gulf of Guinea and widespread throughout the primary forests of São Tomé, while the latter is endemic to São Tomé and Príncipe. Thymeleaceae is also endemic to these islands and contains only two species. *D. thomensis* tends to be restricted to ridges in primary forest, especially in the south-west of the island (F de Oliveira pers comm). Our observations confirm that *D. thomensis* was most numerous on ridges throughout the area. However, it also occurs on lower slopes, albeit less abundantly. Fig 4 depicts typical forest habitat in the region of our observations.

Our records do not support the frequently cited belief that the species is an unobtrusive canopy dweller that is difficult to see<sup>3,5</sup>. As many other species breed at this time of year, it is possible that the grosbeak is also nesting and therefore more conspicuous. Our observations suggest that it is both inquisitive and conspicuous, and will forage at easily observable heights in the forest. This may confirm that it is a genuinely rare species with a restricted range. However, the similarity of its song to that of the seed eater could make it possible to overlook the species, perhaps contributing to the impression of rarity. It is imperative that the population size and range of the grosbeak be clarified for future conservation efforts.

## Acknowledgements

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Captions to photos on facing page

Figure 1. Fruit and leaves of *Uapaca guineensis* (Martin Dallimer)

Figure 2. Fruit and leaves of *Dicranolepis thomensis* (Martin Dallimer)

Figure 3. São Tomé Grosbeak *Neospiza concolor*, São Tomé, 9 February 2002, at 00°10'N 06°30'E (Martin Dallimer)

Figure 4. Typical grosbeak habitat on the ridges south of Zagaia, south-west São Tomé (Martin Dallimer)